

NOTE: Funding is contingent on Congressional appropriation to the AWRRI through the WRA Act Program

CALL FOR PROPOSALS

Alabama Water Resources Research Institute

Fiscal Year 2023 Water Resources Competitive Grants Program:

Auburn University Graduate Student Grants

Anticipated Project Period: September 1, 2023 – August 31, 2024

DEADLINE: Wednesday, March 15, 2023, at 5 p.m. CT

The Alabama Water Resources Research Institute (AWRRI) invites proposals for research addressing water resources research priority areas in the state. **We expect to fund at least 2 grants at an amount of \$7,500 to Auburn University doctoral students to support dissertation research. The anticipated project funding period will be September 1, 2023 - August 31, 2024.**

The AWRRI is the federally authorized and funded entity that encourages, facilitates, and assists multi-disciplinary water resources research at all Alabama universities. The purpose of the AWRRI is to respond to identified water resources problems of the state and region and to encourage and broaden faculty and student participation in research and other scholarly pursuits.

The AWRRI receives funding from the Geological Survey (USGS) of the U.S. Department of the Interior under Section 104 of P.L. 106-374, the Water Resources Research Act of 1984. Research proposals selected will be supported as projects in the State Water Resources Competitive Grants Program, subject to the approval of the USGS. Current doctoral students at Auburn University are eligible to submit a proposal to this program. There are some conditions which must be adhered to that are addressed in the following Guidelines.

Two types of projects are invited:

- a) research projects which address unanswered questions in water supply reliability, water resources problems, and water sciences
- b) information transfer projects which explore and develop novel methods of communicating water resources information to the public

GENERAL INFORMATION

1. **AVAILABLE FUNDING:** In 2023, the proposals may request up to \$7,500 (in Federal funds) and can focus on any of Alabama's water resources research priority areas. We anticipate funding *at least 2 AU doctoral student proposals in 2023.*

These funds are intended to allow doctoral students to pursue research that is not supported by other grant funds. The funds should enable the student to carry out preliminary research to support other grant applications. The funds can be used for research assistant support, travel, supplies, or other direct research expenses. The student will be expected to present the results of the research at a scientific meeting (state, regional, or national), preferably the annual Alabama Water Resources Conference.

2. **SUBMITTAL DEADLINE:** **5:00 p.m., Wednesday, March 15, 2023.** Your proposal must be received by the AWRRI office by the above time/date to be available for review. Proposals received after the deadline will not be accepted for the FY 2023 program.
3. **NOTIFICATION:** You will be notified as soon as possible regarding the status of your proposal.
4. **EVALUATIONS:** Proposals will be evaluated by an AWRRI Review Panel according to criteria of
 - Relevance to Alabama's water resources needs
 - Technical merit
 - Scientific merit
 - Feasibility
 - Promise for future scientific productivity (e.g., follow-on funding)
5. **PROGRAM FOCUS:** The purpose of the AWRRI's Auburn University Graduate Student Grants Program is to address major state water resources problems by motivating and supporting research by Auburn University doctoral students.

The focus of our program is directed by those state research priority areas addressed in **Attachment 1**, which have been developed by the Institute's Water Resources Council. Research proposals submitted to our program **MUST** be responsive to at least one of these priority areas.

6. **PERFORMANCE PERIOD:** Research projects supported by FY 2023 funds are anticipated to start September 1, 2023 and will be 12 months in duration.
7. **DISSEMINATION OF INFORMATION:** Although not required, FY 2023 projects are *highly encouraged* to plan to present project findings at the Alabama Water Resources Conference held annually on the Alabama Coast in early September.
8. **FUNDING:** Grants from FY 2023 funds will be limited to \$7,500 (in Federal funds) for a 12-month budget period. *We anticipate funding at least 2 projects.*
9. **COST SHARING:** **The Federal authorizing legislation (P.L. 106-374) requires at least one non-Federal dollar for each FY 2023 grant dollar to be met on each grant award.**

10. **PROPOSAL SUBMISSION:** Your proposal should be submitted by email to the AWRRI and include a letter signed by your department head confirming cost sharing funds are available if your proposal is funded. **Proposals should be written using 12-point, Times New Roman Font, and submitted electronically as a PDF.** *Email proposals as a PDF to Rachel McGuire: rem@auburn.edu and copy your faculty advisor.*

CHARGES ALLOWABLE TO FEDERAL FUNDS

- A. Costs will be allowable in accordance with 2 CFR Part 200-OMB Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.
- B. This program is modestly funded and should not be perceived as a source of funds for acquisition of major equipment items. Non-expendable personal property (e.g., office furniture, and computers) **may not** be purchased with grant funds. Special purpose equipment used for research, scientific, or other technical activities may be proposed for purchase if each item is identified and justified, and the acquisition cost is stated.
- C. The portion of benefits paid to individuals cannot exceed the proportion of their salaries paid from the grant.
- D. **INDIRECT COSTS MAY NOT BE CHARGED AGAINST THE FEDERAL GRANT FUNDS.**
The Indirect Costs normally charged against Federal grant funds should be used to meet your cost sharing requirement. The U.S. Geological Survey will accept indirect cost rates approved by your university's cognizant auditing agency. Applicants must provide a copy of the approved Indirect Cost Rate Agreement or other approving documentation.
- E. Travel costs are allowable subject to the conditions established in OMB Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards and the travel regulations of your college or university. Travel outside the United States, its territories and possessions, and Canada is considered as foreign travel and requires advance written approval of our office and the U.S. Geological Survey.
- F. Project expenses may not be charged to the grant accounts prior to the official project start date.
- G. All FY 2023 funds must be spent or obligated within the twelve-month period of the project.
NO CARRY-OVER OF FUNDS OR EXTENSIONS WILL BE ALLOWED.

PROPOSAL CONTENT AND FORMAT

1. Cover page (1-page maximum, can be single-spaced) to include:

- a) Project Title
- b) Project Type (Research **or** Information Transfer)
- c) Congressional District
- d) Water Resources Research Priority Area in Alabama [select one (1) from list provided in Attachment 1]
- e) Focus Category [select three (3) from list provided in Attachment 1]
- f) USGS Research Priorities [select one (1) from list provided in Attachment 1]
- g) Keywords [provide at least three (3) and no more than six (6)]
- h) Graduate student name, degree sought, graduate program, institutional address, telephone, and email address
- i) Dissertation advisor name, address, telephone, and email address
- j) Amount requested
- k) Abstract – 250 words maximum
This should inform readers about the problem to be addressed, the general approach to be taken, and the results that are anticipated.

2. Proposal Narrative (5-page maximum, can be single-spaced) to include:

- a. Research priority area that is addressed by the research
- b. Briefly describe how the research will contribute to the understanding and/or solution of the problem and why it is important to Alabama.
- c. Background - Describe the scientific rationale for the proposed work. This section should include the review of relevant literature and should indicate how the proposed research will contribute to new knowledge in the relevant field.
- d. Specific objectives and/or hypotheses of the study
- e. Research methods, experimental design, data analysis/statistical design, and expected results - Include sufficient information so that reviewers on the AWRI Review Panel can judge the technical competence and originality of the work, the likelihood that the work can be completed in the specified time, and that the results will constitute important new and useful information. All projects should be one year in duration (i.e., September 1, 2023 - August 31, 2024). Please describe what products will result from the one-year funding.
- f. Explain specifically how the research results will be utilized in a teaching and/or outreach/extension capacity.

3. Literature cited (*not included in the 5-page limit*)
4. Two-page curriculum vitae for each principal investigator; include the 10 most relevant publications (maximum) (*not included in the 5-page limit*)
5. Budget (use form in Attachment 2, **an Excel template of this budget form is available on the [AWRRI Webpage](#)**) (*not included in the 5-page limit*)
6. Budget justification (use form in Attachment 3) (*not included in the 5-page limit*)
7. Matching funds commitment letter
All applicants must provide an institutional cost-sharing agreement (letter) signed by an official authorized to commit the applicant to all or part of the matching share (We suggest your Department head) or a third-party in-kind contribution signed by an official authorized to commit the third party. (*not included in the 5-page limit*)

NOTE: The proposal must be written by the student, not the faculty advisor; however, the advisor should be made aware of the intended proposal submission by the student applicant. The student will be expected to present the results as a poster or oral presentation at a meeting of an appropriate research organization. Travel and conference registration fees for international conferences are not eligible for funding under this grant. Funds can be used for student support as hourly pay (research assistants) or graduate student salary not covered by existing grants.

**ATTACHMENT 1: RESEARCH PRIORITY AREAS IN ALABAMA,
FOCUS CATEGORIES,
USGS RESEARCH PRIORITIES**

WATER RESOURCES RESEARCH PRIORITY AREAS IN ALABAMA [select one (1)]

- **Special Priority Area: Climate Change & Resiliency**
- Surface Water – Quantity and Quality
- Groundwater Resources and Contamination
- Climate Change and Resiliency
- Coastal Water Research and Policy Issues
- Incorporating Modern and/or Innovative Tech, Strategies, and Approaches in Water Monitoring
- Development of Comprehensive Water Resources Geodatabases and Meta-Analyses)

FOCUS CATEGORIES [select three (3)]

Acid Deposition	Hydrology	Solute Transport
Agriculture	Invasive Species	Surface Water
Conservation	Irrigation	Toxic Substances
Climatological Processes	Law, Institutions, and Policy	Treatment
Drought	Management and Planning	Wastewater
Ecology	Methods	Water Quality
Economics	Models	Water Quantity
Education	Nitrate Contamination	Water Supply
Floods	Non-Point Pollution	Water Use
Geomorphological Processes	Nutrients	Wetlands
Geochemical Processes	Radioactive Substances	
Groundwater	Recreation	
Hydrogeochemistry	Sediments	

USGS RESEARCH PRIORITIES [select one (1)]

Research priorities mandated by Section 104(b) of the Water Resources Research Act of 1984 as amended 2006 are as follows:

I. Water supply reliability

Proposals can address any aspect of supplying water for human and ecological needs. This may include (but not be limited to) water re-use, projected water supply issues for municipalities or regions, water availability for aquatic ecosystems, limitations to water supply such as contamination, water infrastructure, and watershed management.

II. Novel approaches to water resources problems and water science

Proposals can address any aspect of water resources research if they clearly demonstrate the importance of a water resources issue to Alabama and demonstrate that the proposed scientific methods and/or solutions to a water resources problem represent new ideas in the field. Projects may address topics in water resources engineering, aquatic ecology, hydrology, water quality issues, socio-economic aspects of water resources, or the communication of water resources information to the public (including school programs).

III. Information Transfer

Projects that explore and develop novel methods of communicating water resources information to the public (examples may include K-12 classroom teaching, informal science education, citizen science projects) are encouraged.

ATTACHMENT 2: BUDGET FORM

FORMAT FOR THE BUDGET:

This format is required by USGS. Please complete the attached form. *An Excel template is available on the AWRRI Webpage.*

- It is the policy of the AWRRI that funds should not be used for summer salary for full-time faculty.
- It is a federal requirement of the program that these grants are matched by non-federal funds on a **1 non-federal dollar: 1 federal dollar basis**. Pro-rated salary for time spent by the faculty advisor on the project can be allocated to the non-federal contribution, as can the indirect costs charged by the institution. **The indirect cost rate cannot be applied to tuition and equipment costs.** Federal dollars may **not** be used for indirect costs.
- Itemize the non-federal dollars being used for the match.

ATTACHMENT B

BUDGET BREAKDOWN

PI Name & University:				
Project Title:				
Cost Category		Federal	Non-Federal (match)	Total
1. Salaries and Wages				
Principal Investigator(s)				\$0.00
Graduate Student(s)				\$0.00
Undergraduate Student(s)				\$0.00
Other(s)				\$0.00
Total Salaries and Wages		\$0.00	\$0.00	\$0.00
2. Fringe Benefits	Rate (%)			
Principal Investigator(s)	0.00%			\$0.00
Graduate Student(s)	0.00%			\$0.00
Undergraduate Student(s)	0.00%			\$0.00
Other(s)	0.00%			\$0.00
Total Fringe Benefits		\$0.00	\$0.00	\$0.00
3. Tuition				
Graduate Student(s)				\$0.00
Undergraduate Student(s)				\$0.00
Total Tuition		\$0.00	\$0.00	\$0.00
4. Supplies				\$0.00
5. Equipment				\$0.00
6. Services or Consultants				\$0.00
7. Travel				\$0.00
8. Other direct costs				\$0.00
9. Total direct costs		\$0.00	\$0.00	\$0.00
	Rate (%)			
10a. Indirect costs on federal share	0.00%	XXXXXXXXXX	\$0.00	\$0.00
10b. Indirect costs on non-federal share	0.00%	XXXXXXXXXX	\$0.00	\$0.00
11. Total estimated costs		\$0.00	\$0.00	\$0.00

NOTE: an Excel template of this budget form is available on the [AWRRI Webpage](#)

Total Federal for student grants - maximum of \$7,500

Total Non-Federal for student grants - minimum of \$7,500

Total estimated costs for student grants - \$15,000

ATTACHMENT 3: BUDGET JUSTIFICATION FORM

FORMAT FOR THE BUDGET JUSTIFICATION:

This format is required by USGS. Please complete the attached form.

- Provide a narrative justification using the attached form for the specific dollar allocations.

Please be as specific as possible and be sure to include estimated hours and rate of compensation for salaries and wages, fringe benefit rates, and negotiated indirect (F&A) rates.

Please include a justification for all matching contributions as well.

Follow the specific instructions on the form for each line item.

BUDGET JUSTIFICATION

PI Name & Project Title:

<p>Salaries and Wages for PIs. Provide personnel, title/position, estimated hours and the rate of compensation proposed for each individual.</p>
Federal:
Non-Federal (match):
<p>Salaries and Wages for Graduate Students. Provide personnel, title/position, estimated hours and the rate of compensation proposed for each individual. (Other forms of compensation paid as or in lieu of wages to students performing necessary work are allowable provided that the other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work. Also, note that tuition has its own category below and that health insurance, if provided, is to be included under fringe benefits.)</p>
Federal:
Non-Federal (match):
<p>Salaries and Wages for Undergraduate Students. Provide personnel, title/position, estimated hours and the rate of compensation proposed for each individual. (Other forms of compensation paid as or in lieu of wages to students performing necessary work are allowable provided that the other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work. Also, note that tuition has its own category below and that health insurance, if provided, is to be included under fringe benefits.)</p>
Federal:
Non-Federal (match):

Salaries and Wages for Others. Provide personnel, title/position, estimated hours and the rate of compensation proposed for each individual.

Federal:

Non-Federal (match):

Fringe Benefits for PIs. Provide the overall fringe benefit rate applicable to each category of employee proposed in the projects. Note: include health insurance here, if applicable.

Fringe Benefit Rate for PIs =
Federal:

Non-Federal (match):

Fringe Benefits for Graduate Students. Provide the overall fringe benefit rate applicable to each category of employee proposed in the projects. Note: include health insurance here, if applicable.

Fringe Benefit Rate for Graduate Students =
Federal:

Non-Federal (match):

Fringe Benefits for Undergraduate Students. Provide the overall fringe benefit rate applicable to each category of employee proposed in the projects. Note: include health insurance here, if applicable.

Fringe Benefit Rate for Undergraduate Students =
Federal:

Non-Federal (match):

Fringe Benefits for Others. Provide the overall fringe benefit rate applicable to each category of employee proposed in the projects. Note: include health insurance here, if applicable.

Fringe Benefit Rate for Others =
Federal:

Non-Federal (match):

<p>Tuition for Graduate Students. Provide time & amount. In-state or Out-of-state tuition?</p> <p>Federal:</p> <p>Non-Federal (match):</p>
<p>Tuition for Undergraduate Students. Provide time & amount. In-state or Out-of-state tuition?</p> <p>Federal:</p> <p>Non-Federal (match):</p>
<p>Supplies. Indicate separately the amounts proposal for laboratory and field supplies followed by a breakdown of the supplies in each category.</p> <p>Laboratory supplies (itemized list):</p> <p>Field supplies (itemized list):</p>
<p>Equipment. Identify non-expendable personal property having a useful life of more than one (1) year and an acquisition cost of more than \$5,000 per unit. If fabrication of equipment is proposed, list parts and materials required for each, and show costs separately from the other items. A detailed breakdown is required.</p> <p>Detailed breakdown:</p>
<p>Services or Consultants. Identify the specific tasks for which these services, consultants, or subcontracts would be used. Provide a detailed breakdown of the services or consultants to include personnel, time, salary, supplies, travel, etc. A breakdown is required for each cost.</p> <p>Detailed breakdown for each cost:</p>

Travel. Provide purpose and estimated cost for all travel. A breakdown should be provided to include location, number of personnel, number of days, per diem rate, lodging rate, mileage and mileage rate, airfare (whatever is applicable).

Purpose & Location:
Number of personnel & number of days:
Per diem rate:
Lodging rate:
Mileage & mileage rate:
Airfare:

Other Direct Costs. Itemize costs not included elsewhere, including publication costs. Costs for services and consultants should be included and justified under “Services or Consultants” (above). Please provide a detailed breakdown for costs listed under this category.

Detailed breakdown for each cost:

Indirect Costs. Provide negotiated indirect (“Facilities and Administration”) cost rate.

Indirect Cost Rate (F&A) =